

# CASE STUDY FOR LEARN LOVE IN OLD AGE HOME: A DATA MINING APPROACH

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**Abstract:** India is the country with second largest aged population in the world and family is the biggest security and support for the elderly unlike western countries, but our nation has been ranked amongst the poorest of nation to grow old in a global survey. Global Age Watch Index (GA WI) developed with the UN fund for population and development, ranks India a poor 73 out of the 91 countries sampled. Elderly perceives low social worth or selfesteem in family situations. The greatest health asset for geriatric population is spending time and doing things with other people, of all ages, which can help keep the m mentally, physically and emotionally fit. Keeping this point in mind present study was undertaken in 'Aasara' old age home, Bhopal whole the population has been selected for the study. Aim of the investigation to find out the views of elderly peoples related to old age home adjustment. Result shows that elderly people living in old age home faced lots of problem related to personal and social adjustment.

**Keywords:** Data Mining, APriori Algorithm, Selfesteem, Population, Old age home.

## I.INTRODUCTION

Old age is the closing period in the life span. It is a period when people "move away" from previous, more desirable period or time of "usefulness".The old people feel totally neglected and sometime they have to take refuge in homes for the aged which are run by some social organization "Old Age Homes" or the homes for the aged as they are called are a western concept, totally alien to the Indian people, but the westernization of our society due to social changes, they do not have family or friends, unable to care properly themselves, sense of inability to adjust and ill health and the death of spouse. The modern socio economic system makes old age a serious social problem. Planned and purposeful activities which will constructional engage older persons according to their capacity must be organized. Those aged who are suffering from illness need special services in their old age homes.

Neglect intentional or unintentional failure to meet a dependent older person's needs and violating personal rights. Feeling of loneliness, social economic status of aged, change in social roles; adjustment problems in old age: generational gap some important factors behind need for institution. Old age person suffer from unhappiness caused by their feeling of usefulness, loneliness economic insecurity, and adjustment problem. Old age is the closing period of life span. Some spend later part of life happily, whereas others face untold hardship and denied even the minimal comforts of life.

## II.HISTORICAL BACKGROUND

The origins of community responsibility for the elderly in Cleveland can be traced to the Northwest Territorial law for the relief of the poor, enacted in 179. This act placed the obligation for maintaining needy relatives upon "father and grandfather, and the mother and grandmother, and the children of every poor, old, blind, lame and important person." During the early 19<sup>th</sup> century, assistance to Cleveland's needy, including the aged, continued to come primarily from traditional sources the family, private benevolence, and public relief.

### 2.1 PRESENT CONDITION

Location of old age home was not appropriate for elderly people Administrators never plan visit for old people Community facilities should be provided for elderly Some more peoples, funds, should be plan by the government for old people Regular medical check-ups and health facilities should be plan for old people in old age homes Recreation facilities should be provided in old age home like-indoor plays, outdoor plays etc. Old times is greatest and longest established spinner of all... factory is a secret place, his work is noiseless, and his hands are mutes.

## III.SIGNIFICANCE OF THE STUDY

This study was conducted, for evaluation the life of elderly people in the Old Age Home of the Archdiocese of changanacherry and the welfare measure taken by this

Archdiocese through Old Age Homes. The analysis of socio-physical and psychological problems of the aged people enabled the researcher to understand, the nature and extent of various problems faced by them. It is better to present a consolidated picture of the study. It may provide us with some insight towards framing an appropriated policy of suggestion to accommodate the needs of the aged people. It has been found that majority of the respondent lived with their families, before joining the institution. But they were forced to leave their home because of various reasons. Migration of the younger people due to employment from village to town, from town to city and from city to abroad increases the hardships to the older generation.

#### IV. OBJECTIVES OF THE STUDY

The main objectives of study were as under

- To measure the depression among adult and aged.
- To measure the psychological will being and aged.
- Check co-relation between depression and psychological will being.
- To study the background characteristics and reasons for staying in old age homes among those elderly in Odisha.

##### Null hypothesis

To related objectives of this study null-hypothesis were as under

- There is no significant difference in difference in depression among adult and aged.
- There is no significant difference in psychological will being among adult and aged.
- There is no co-relation between depression and psychological will being.

#### V. RESEARCH METHODOLOGY

**Methodology:** The present study is an exploratory research conducted among the people in Theni. In order to pursue the aims and objectives outlined in the introduction, a content analysis of information gained from a multimedia research process was conducted to establish the underlying trends in location to find common diseases.

The first stage involved gathering of secondary information from people. The second stage involved identifying the age group among them and structuring a comparative analysis of the five identified parameters under each category.

A summary of interpretations was also given. In the third stage, analysis was carried out by making specific assumptions in a hypothetical situation. In the last and the fourth stage, on the basis of the results and interpretations, specific postulates were framed, and on each postulate hypotheses were framed that can be tested through quantitative research in the future. The above-mentioned stages have been described as objectives in the preceding paragraph.

**Algorithm used :** Data mining is the core process of knowledge discovery in database. It is the process of extraction of useful patterns from the large database. To analyze the large amount of collected information, the area of Knowledge Discovery in Database (KDD) provides techniques which extract interesting patterns in a reasonable

amount of time. Data mining is the application of efficient algorithms to detect the desired patterns contained within the given data. Data mining is the extraction of hidden descriptive or predictive information from large databases.

**Association Rule Mining :** Association rules mining are one of the major techniques of data mining. The purpose of association analysis is to figure out the hidden association and some useful rules of data base, and uses these rules to speculate and judge the unknown matter from the already known information. Association rule mining has many important applications in our life.

**Association Rule :** An association rule is one of the forms  $x \Rightarrow y$ . and each rule has two basic needs: support and confidence. Things that occur often together can be associated to each other. These together occurring things form a frequent itemset. Conclusions based on the frequent itemsets make association rules.

#### 5.1 APRIORI ALGORITHM

Apriori algorithm is a fundamental algorithm mining association rule. It contains two processes: • Detect all frequent itemsets by scanning db. • Form strong association rules in the frequent itemsets. Process one needs to scan DB several times, which consumes a lot of time and space. As a result, what needs to be improved is the mining competency of frequent group of things in DB.

Apriori algorithm is a significant algorithm for mining frequent itemsets for Boolean association rules. Apriori algorithm is formed by Agrawal and Srikantin 1994. It is the most fundamental and important algorithm for mining frequent itemsets. Apriori is used to detect all frequent itemsets in a provided database db. The keynote of Apriori algorithm is to form multiple passes over the database. It employs an repetitive approach called as a breadth-first search (level-wise search).

#### 5.2 Key Concepts

- Frequent Itemsets: The itemsets which has minimum help (denoted by  $l_i$  for  $i$ th-itemsets), Apriori property: any subgroup of frequent things must be frequent.
- Join Operation: To detect  $l_k$ , a group of candidate  $k$ -group of things is developed by adding  $l_{k-1}$  with itself.
- How Apriori Works? Find All Frequent Itemsets.
- Get Frequent Things: Things whose occurrence in database is more than or equal to the minimum help threshold.
- Frequent Itemsets: Develop candidates from frequent things. Prune the results to detect the frequent itemsets. Develop strong association rules from frequent itemsets. Rules which satisfy the minimum support and minimum confidence threshold.

Association Rule:

Association rule of data mining involves picking out the unknown inter-dependence of the data and finding out the rules between those items [3]. Agrawal introduced association rules for point of sale (POS) systems in supermarkets. A rule is defined as an implication of the form  $A \Rightarrow B$ , where  $A \cap B \neq \emptyset$ . The left-hand side of the rule is

called as antecedent. The right-hand side of the rule is called as consequent.

Support:  $I = \{ i_1, i_2, i_3, \dots, i_m \}$  is a collection of items. T be a collection of transactions associated with the items. Every transaction has an identifier TID [6]. Association rule  $A \Rightarrow B$  is such that  $A \in I, B \in I$ .

A is called as Premise and B is called as Conclusion. The support ,S, is defined as the proportion of transactions in the data set which contains the itemset.

$$\text{Support}(X \Rightarrow Y) = \text{Support}(XUY) = P(XUY).$$

Confidence: The confidence is defined as a conditional probability

$$\text{Confidence}(X \Rightarrow Y) = \frac{\text{Support}(XUY)}{\text{Support}(X)} = \frac{P(XUY)}{P(X)}.$$

Lift: is the ratio of the probability that L and R occur together to the multiple of the two individual probabilities for L and R, i.e.  $\text{lift} = \frac{\text{Pr}(L,R)}{\text{Pr}(L).\text{Pr}(R)}$ .

## VI. ANALYSIS OF DATA

### 6.1 Data Mining Definition:

Data mining is the process of analyzing data from different perspectives and summarizing it into useful information-information that can be used to increase revenue, cuts costs, or both. It allows users to analyze data from many different dimensions or angles, categorize it, and summarize the relationships identified. Technically, data mining is the process of finding correlations or patterns among dozens of fields in large relational databases. However, continuous innovations in computer processing power, disk storage, and statistical software are dramatically increasing the accuracy of analysis while driving down the cost.

### 6.2 Analysis of data

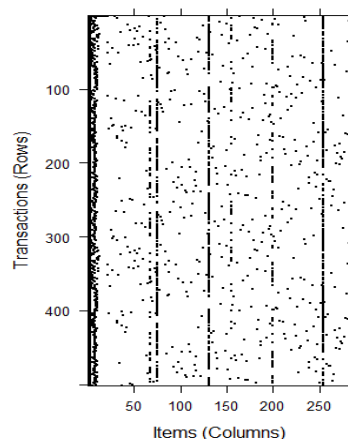
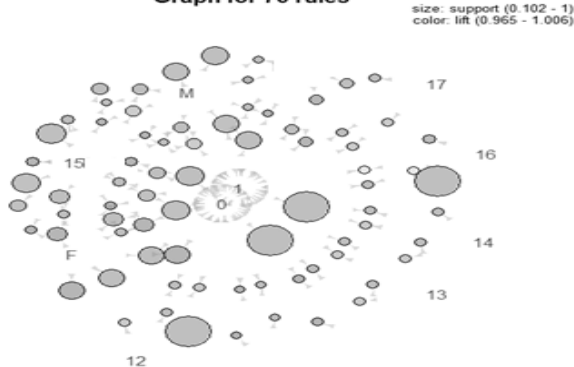
The researcher collects more than 500 responses from samples all over Theni. She spent nearly 2 months to collect the fresh data from end users. After collecting the information, all the details are fed into the software and checked for outlier. The cleaned data was analyzed using single attribute and multiple attributes. Name, Age, Gender.

To process the data, I have installed the following libraries such as arules, arulesViz, from cloud storage. Then the dataset was inserted into the R- tool for processing.

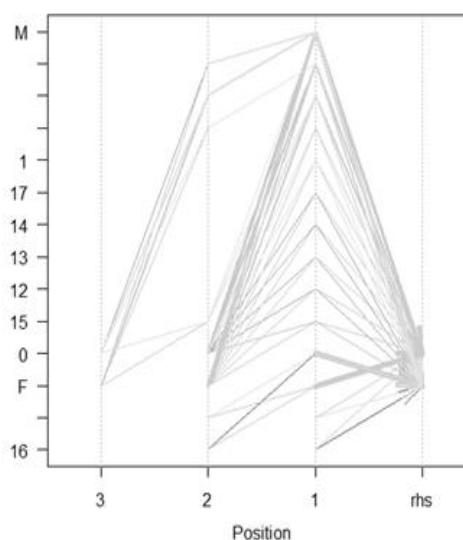
## VII. RESULTS AND DISCUSSION

This chapter discusses and analyzes the implementation results of the proposed work. The snapshot of the implementation details of the methodology are tested and evaluated. The experimental results are discussed in detail. The methodology consist of 3 phases, the results of each phase are discussed in the following sections.

Graph for 76 rules



Parallel coordinates plot for 76 rules



## VIII. RECOMMENDATIONS

- Indore to improve these type of Old Age Home, the investigation has the following Suggestions and Recommendations. It would be relevant in easing the problems of the aged.
- The government must support to the Old Age Homes. Then they can improve their facilities.
- The younger generation should be made aware of the love and care needed by the old people.
- The community should facilitate economic help to the aged. The aged can be helped to receive their pension, and be made aware of the different grant-in-aid schemes of the government. The public may be encouraged to make donations for improving the standard of living of the inmates of free type Old Age Homes and thus to help them to lead a better life.
- As psychological factors play a vital role in the physical well being too, the facilities provided in the Old Age Homes should be designed in such a way that they must physically and psychologically be conducive to the aged people.

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